

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Establishing a 5G Fund for)	WC Docket No. 20-32
Rural America)	

REPLY COMMENTS OF SES AMERICOM, INC. AND O3B LIMITED

SES Americom, Inc. and its affiliate O3b Limited (together, “SES”) hereby submit this reply to the comments of other parties regarding establishing a 5G Fund for rural America.¹ The initial SES comments highlight the need for the Commission to take a technology-neutral approach that enables auction participants to use satellite networks to quickly and cost-effectively bring much needed connectivity to communities that remain unserved or underserved.² Widespread mobile connectivity is more critical than it has ever been.³ The Commission should not stifle 5G deployment by barring mobile service providers from using satellite technologies that can support latency-sensitive mobile services, such as SES’s Medium

¹ *Establishing a 5G Fund for Rural America*, WC Docket No. 20-32 (rel. Apr. 24, 2020) (“5G Fund NPRM”).

² Comments of SES Americom, Inc. and O3b Limited, WC Docket No. 20-32, filed June 25, 2020 (“SES Comments”). Unless otherwise specified, all citations herein are to comments filed in June 2020 in WC Docket No. 20-32. *See also* Comments of SES Americom, Inc. and O3b Limited, AU Docket No. 20-34, WC Docket Nos. 19-26 & 10-90, filed Mar. 26, 2020 (“SES RDOF Comments”).

³ The current COVID-19 crisis underscores the need to accelerate the widest possible availability of broadband capacity to support remote learning and work, telehealth, and other critical services. *See* SES Comments at 7; SES RDOF Comments at 5. *See also*, Press Release, *SkyNet de Colombia and SES Networks Ramp Up Connectivity Services to Aid Worst-hit COVID-19 Colombian Amazonas Communities*, SES Networks (June 8, 2020), <https://www.ses.com/press-release/skynet-de-colombia-and-ses-networks-ramp-connectivity-services-aid-worst-hit-covid-19>; Press Release, *Fighting COVID-19 Through Satellite-based Telemedicine Networks*, SES Networks (June 20, 2020), <https://www.ses.com/blog/fighting-covid-19-through-satellite-based-telemedicine-networks>.

Earth Orbit (“MEO”) satellite network.

The record developed in this proceeding and the RDOF proceeding demonstrates that the SES MEO system successfully delivers broadband services and enables real-time applications.⁴ With round-trip latency in the range of 120-150 ms, SES’s MEO capacity can be integrated seamlessly into carrier networks using existing carrier standards and equipment, providing local internet service providers (“ISPs”) with economical, high throughput service that supports latency-sensitive consumer applications. These capabilities have been repeatedly vetted and substantiated by third party analysts, and the SES MEO network obtained a MEF Carrier Ethernet 2.0 (CE 2.0) certification, confirming that it can supply the most advanced, high-performance, and secure Ethernet services globally. With this state-of-the-art technology, SES customers have fiber-equivalent connectivity that “consistently delivers an unrivalled, ubiquitous quality of digital experience even in the most remote areas on the planet.”⁵

The record in this proceeding does not justify implementation of the Commission’s proposed 100 ms latency standard.⁶ While some commenters in the proceeding generally endorse the Commission’s proposed latency benchmark, no commenter offers any technical justification for why 100 ms is required for the deployment of 5G networks.⁷ Moreover, adopting a 100 ms

⁴ See generally SES Comments; SES RDOF Comments; Reply Comments of SES Americom, Inc. and O3b Limited, WC Docket Nos. 19-26 & 10-90, filed Oct. 21, 2019 (“SES RDOF Reply Comments”); Ex Parte Letters from SES Americom, Inc. and O3b Limited, WC Docket Nos. 19-126, 10-90, filed Jan. 10, 2020 and Jan. 15, 2020.

⁵ SES Networks, *How MEF Certification of Satellite-based Service Makes Fibre Quality Connectivity Ubiquitous Worldwide*, <https://www.ses.com/blog/how-mef-certification-satellite-based-service-makes-fibre-quality-connectivity-ubiquitous> (Nov. 22, 2017); see also SES Networks, *SES Networks First to Achieve MEF CE 2.0 Services Certification Over Satellite*, <https://www.ses.com/press-release/ses-networks-first-achieve-mef-ce-20-services-certification-over-satellite> (Nov. 7, 2017).

⁶ 5G Fund NPRM at ¶ 100.

⁷ See, e.g., Rural Wireless Association Comments at 15 (endorsing 100 ms latency benchmark for “simplicity” while acknowledging that “there is no one size (or speed) that fits all.”). Indeed, few

latency benchmark for 5G networks ignores the established role of satellite in the delivery of 5G services. Specifically, satellites can provide capabilities for 5G networks that likely cannot otherwise be efficiently delivered via terrestrial networks, such as expanding ubiquitous and resilient connectivity, resolving network congestion, and enabling edge computing and caching to remote cell sites.⁸

In contrast, the record supports giving 5G Fund recipients some flexibility to choose the speed, latency, and technologies they will employ in building their 5G networks. For example, AST&Science urged the Commission not to limit technologies and supported a flexible approach like the one in the RDOF proceeding, where the Commission considered applicants on case-by-case basis consistent with the regulatory principle that regulations should be technology neutral.⁹ While SES urges the Commission not to set arbitrary latency limits from the outset, AST&Science's proposed case-by-case approach would at least allow for a variety of technologies and flexibility in 5G network deployment. Similarly, the Competitive Carriers Association urged that the market, not the Commission, should determine timing of particular technology deployment.¹⁰ SES agrees that 5G Fund recipients should be allowed to deploy their networks without the Commission directing when and how specific technologies must be used.

SES's proven fiber-like MEO connectivity service, combined with the ubiquity and reliability of satellite technology, would benefit 5G Fund recipients and further the Commission's

commenters discussed the Commission's proposed latency benchmark. *See generally* Comments of Verizon; Comments of the Competitive Carriers Association.

⁸ *Key elements for integration of satellite systems into Next Generation Access Technologies*, Report ITU-R M.2460-0, at 3-7 (July 2019), available at <https://www.itu.int/en/ITU-R/space/workshops/2019-SatSymp/PublishingImages/Pages/Programme/R-REP-M.2460-2019-PDF-E.pdf>.

⁹ AST&Science Comments at 30.

¹⁰ Competitive Carriers Association Comments at 13.

stated policy goal of bridging the digital divide in rural communities. In addition to expanding and facilitating the provision of 5G services, MEO-supported broadband can accelerate service extension to more areas while mobile operators work on deploying fiber. By using SES MEO capacity, terrestrial carriers would be able to deliver fiber-like connectivity to their 5G sites until fiber is deployed. Furthermore, even once fiber networks are in place, satellite capacity can continue to play an important role by providing critical redundancy, supplying surge capacity, and extending service beyond fiber endpoints. Satellite connectivity provides diversity to mitigate the risk of relying on a single source of broadband and can be used to offload traffic while still being available in the event of disruption to the terrestrial network. Thus, adjusting the proposed latency standards for the 5G Fund to allow reliance on SES MEO capacity and other satellite technologies is a win-win approach for rural communities, promoting an affordable, immediately available 5G backhaul solution, while laying a foundation for future service growth and expansion. Allowing mobile network operators to develop solutions with a satellite component presents the best chance to extend essential 5G services to the most rural and remote parts of the country.

SES urges the Commission to revise the proposed arbitrary latency standard and enable 5G Fund applicants to incorporate MEO satellite capacity into their networks. Doing so will ensure that 5G Fund applicants have the option to integrate cost-effective and high-performance satellite broadband technologies into their networks, while supporting 5G rollout across the United States.

Respectfully submitted,

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